Amendments to the Specification

Please replace the paragraph at page 14, line 16 through page 15, line 3 with the following amended paragraph:

Another embodiment of a multishelled reactor is shown in FIGURE 4. FIGURE 4 shows a side view cutaway of the reactor (200). Annular zones (201, 202, 203,204) are located in the gaps between the shells (205,206,207,208,209). Inside shell 209 are two components, a HTS (212) and an ATR zone (213). These components are separated by a mixing area (217,218) and a vaporization area (219). Tube (216) carries water to be evaporated in the hot reformate flowing from the ATR (213). Tube (214) is an inlet for a fuel/steam mixture into the ATR (213). This fuel/steam mixture is preheated in coiled tubes (~~215~~232, 222) and is connected by manifolding (not shown) to tube (214). In another embodiment, the fuel and steam may be combined earlier. In such a reactor they may be combined prior to introduction to the reactor. Air enters at air inlet (220) and flows through zone (203) and returns through zone (204), and is heated through the shell (209,208) walls by heat generated in the ATR (213), the HTS (214), and the integrated burner (211).

Please replace the paragraph at page 15, lines 12 through 18 with the following amended paragraph:

Burner fuel in the form of anode exhaust enters the reformer (200) at inlet (224) and passes through zone (201), and is preheated there through shell (206) by heat from zone (202). The hydrogen is mixed with air introduced into chamber (225) and passes into burner (211), where heat is produced. The exhaust from the burner flows through zone (202) and over the coils of tubes (~~215~~232, 222) in which the reformer fuel/steam mixture is flowing, and the cooled exhaust leaves the reformer at outlet (226). One expansion bellows (215) is provided, and is sufficient to prevent differential expansion from putting pressure on any of the shells.

Please replace the paragraph at page 16, lines 2 through 12 with the following amended paragraph:

Another embodiment of a multi shelled reactor (200) is disclosed in FIG. 4. Annular zones (201, 202, 203,204) are located in the gaps between the shells (205,206,207,208,209). Inside shell 209 are two components, an HTS (212) and an ATR zone (213). These components are separated by a mixing area (217,218) and a vaporization area (219). Tube (216) carries water to be evaporated in the hot reformate flowing from the ATR (213). Tube (214) is an inlet for a fuel/steam mixture into the ATR (213). This fuel/steam mixture is preheated in coiled tubes (~~215~~232, 222) and is connected by manifolding (not shown) to tube (214). In another embodiment, the fuel and steam may be combined earlier. In such a reactor they may be combined prior to introduction to the reactor. Air enters at air inlet (220) and flows through zone (203) and returns through zone (204), and is heated through the shell (209,208) walls by heat generated in the ATR (213), the HTS (214), and the integrated burner (211).

Please replace the paragraph at page 16, line 21 through page 17, line 3 with the following amended paragraph:

Burner fuel in the form of anode exhaust enters the reformer (200) at inlet (224) and passes through zone (201), and is preheated there through shell (206) by heat from zone (202). The hydrogen is mixed with air introduced into chamber (225) and passes into burner (211), where heat is produced. The exhaust from the burner flows through zone (202) and over the coils of tubes (~~215~~232, 222) in which the reformer fuel/steam mixture is flowing, and the cooled exhaust leaves the reformer at outlet (226). One expansion bellows (215) is provided, and is sufficient to prevent differential expansion from putting pressure on any of the shells.